



# greater cincinnati water works

2004 Annual Report

the  
elements  
of success





### City Council Members

Charlie Luken, Mayor

Alicia Reece, Vice Mayor

Y. Laketa Cole

Chris Monzel\*

John Cranley

David Pepper

David Crowley

Christopher Smitherman

Pat DeWine\*

James R. Tarbell

Sam Malone

*\*During 2004, Chris Monzel replaced Pat DeWine on Council.*

### City Manager

Valerie A. Lemmie

*City of Cincinnati is an Equal Opportunity/Affirmative Action Employer*

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*A Service of The City of Cincinnati*

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David E. Rager, Director

### Senior Management

Steven C. Hellman, CPA, Business Services Division

Connie Roesch, Commercial Services Division

Frederick G. Merz, P.E., Distribution Division

Paul E. Tomes, P.E., Engineering Division

Albin J. Brune, P.E., Supply Division

Jack DeMarco, Water Quality and Treatment Division

# Introduction

*Maybe it's a neighborhood restaurant, where you know your food will be served with a smile. Or a cashier at the grocery store who rings your order with record-setting speed. We all have our reasons for returning to certain businesses. With your water supplier, of course, there is only one option. Yet we at Greater Cincinnati Water Works (GCWW) strive every day to maintain your faith in us and in the product we provide.*

In 2004, our commitment to our customers was strengthened in two key ways. First, we ensured that your water supply is clean and safe by investing in our people, who are among the best and brightest in the industry. From industry seminars to in-house training, GCWW teams continued to learn and grow in areas such as water quality, security, customer service and staff safety. In addition, GCWW personnel are frequently tapped for their knowledge and expertise. During the past year, they delivered numerous presentations, consulted with agencies such as the U.S. Environmental Protection Agency (EPA) and published articles and reports.

Secondly, GCWW invested in technology to improve customer service. We installed our new expert agent software, which helps us route incoming calls to agents best equipped to answer the question. We also installed software to ensure our call center is staffed appropriately at all times. We continued to update water meters to radio read technology. This H<sub>2</sub>O Radio project was begun in 2003 and is scheduled for completion in 2007. Our rollout of this technology is fast becoming one of the most admired installations of this type throughout the nation and the world.

Heightened security needs, along with higher material and energy costs, caused an increase in the overall cost of providing clean, safe water. Yet, GCWW continues to provide water at costs that are among the lowest in the region.

We are dedicated to ensuring that each customer has a plentiful supply of the highest quality water anywhere... that every customer experiences outstanding service with every interaction... and that these services are delivered at a reasonable cost. We think we are doing a great job. And we hope you agree.



August 2004

*"It's not often you get cheerful, prompt service... I found Kelle to be very thoughtful and helpful."*

Robin S.

## GCWW Quick Facts

### Every day, Greater Cincinnati Water Works...

*typically provides 134 million gallons of water*

### which is...

*cleansed by two state-of-the-art treatment facilities and  
checked by 300+ water quality tests per day*

### before being...

*delivered through 3000 miles of water mains to more  
than one million customers*

### who are...

*served by more than 600 Water Works employees.*



## Quarterly Water Costs for the Average Single-Family Household

\$35.50	Cleves
\$37.01	Dayton
\$38.61	Fairfield
\$39.10	Toledo
\$42.95	Cincinnati
\$43.44	Loveland
\$44.39	Cleveland
\$44.87	Columbus
\$47.76	Louisville
\$48.86	Clermont County
\$49.00	Hamilton
\$49.08	Norwood
\$52.11	Glendale
\$55.15	Indianapolis
\$55.22	Middletown
\$57.04	Warren County
\$62.32	Akron
\$62.50	Reading
\$63.83	Lexington
\$64.14	Harrison
\$64.50	Indian Hill
\$70.65	Lockland
\$70.70	Milford
\$81.12	Newport
\$81.12	N. Ky. Water Serv. Dist.
\$94.54	Butler County
\$99.10	Wyoming

Greater Cincinnati Water Works water rates are lower than most neighboring areas.

As of November, 2004, Cincinnati's rate was the 5th lowest of the 28 nearby utilities surveyed (based on usage of about 25 CCF per quarter).

*In an age when budgets are more constrained than ever, municipalities are seeking ways to contain costs and outsource services that can be more efficiently performed by others. In 2004, cities continued to turn to Greater Cincinnati Water Works for the delivery of billing and customer care services.*

Cities chose GCWW to assist them with customer service for financial reasons. They also chose us because of our investments in customer care technologies and the superiority of our customer service capabilities. In addition, we continued to serve as a regional source of high-quality water.

### Answering the Call in Butler County

In 2004, Butler County signed a landmark agreement with GCWW. Through this agreement, which went into effect in December, GCWW provides billing and customer care services for water and sewer services. Approximately 38,000 Butler County accounts are now handled by GCWW Customer Service Representatives operating from our call center and through a new Interactive Voice Response system customized specifically for Butler County. GCWW call center staff also generates service orders through customer calls that are passed on to Butler County for completion.

GCWW also signed an agreement to become a major supplier of wholesale water to Butler County. While GCWW has sold water to the County for years, the increased capacity will help Butler meet its growing demand. The agreement also helps GCWW; it provides additional revenue as well as a back-up emergency connection with Butler County.





## Adding a New Line Item for Woodlawn and Silverton

Facing rising costs to provide trash removal, the Village of Woodlawn and the City of Silverton determined that they needed to begin charging residents for this service. These municipalities asked GCWW to add these services to the water and sewer bills already being distributed to help keep down additional fees.

## Creating a “Softer” Future for Mason

Until 2004, about half of Mason customers had a pretty hard way to go — in terms of their water supply, that is. Several alternatives were suggested based on GCWW’s review of Mason’s hard water problem. Of these, the best — switching those customers to GCWW water — became evident and was implemented in November.

## Finding the Answer for Lockland

The City of Lockland determined that there was a possible leak underneath the portion of Interstate 75 running through the city. Lockland called upon GCWW to help isolate the leak. In fact, GCWW was able to verify that the affected main could be shut off without compromising the integrity of the overall system. Because of this, GCWW assisted Lockland in avoiding a costly and inconvenient repair under a heavily used portion of the I-75 expressway.

September 2004

*“It was really nice to get such good customer service. Didi was not only helpful, but exceptionally polite and considerate of my time.”*

Ted H.



*When you want a drink, you turn on the faucet without a second thought. When you want to do a load of laundry, you toss it in, turn the knob and go. At GCWW, we are proud of the fact that you place such trust and confidence in what we deliver. Yet, with thousands of water mains, valves and parts within our treatment and storage facilities, there is a tremendous amount of work and thought that goes into bringing high-quality, safe water to your tap.*

GCWW works hard to ensure that you have access to a constant water supply in your home. We focus on continuous improvement and regularly upgrade our infrastructure to guarantee that only the best quality water reaches you. Major improvements in 2004 include a new tank in White Water Township in Western Hamilton County as well as a tank, reservoir, pump station and two new regulator stations in Mason.

## Finding the Needle

The unexplained loss of water through GCWW pipes, valves and other pieces of infrastructure means lost revenues for us and potentially higher prices for our customers. Since the 1950s, we have performed surveys that compare the amount of incoming and outgoing water to gain an understanding of just how much water leaks from our system. More recently, technology has become an increasingly important part of our strategy to actually find and eliminate leaks. In 2002, for instance, we switched to systematic acoustical testing to better identify where leaks stem from and began converting large, outdated meters to gain efficiencies in the system, a process which continued in 2004.

## Securing Our Future

Ensuring the safety and security of our water supply remains a priority. With a \$1 million grant from the EPA, GCWW was able to make significant improvements in our infrastructure to bolster and tighten the security of our facilities both internally and externally.



### GCWW Quick Fact

*During 2004, GCWW installed or replaced a record **61 miles of water mains** and installed two new tanks to handle the growing demands for water.*

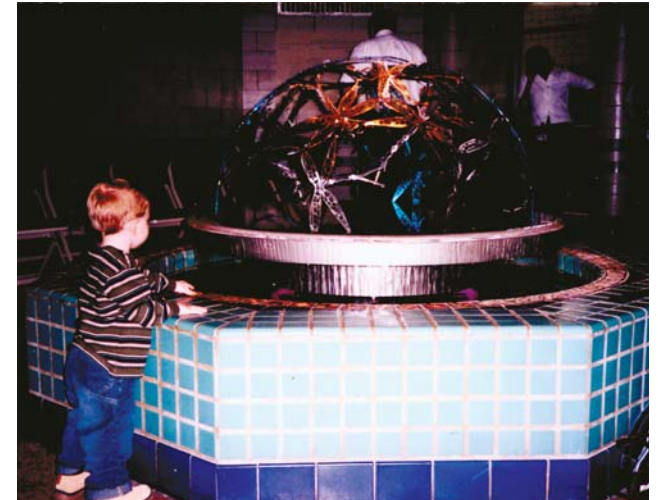


## Giving New Life to Older Mains

As the saying goes, time marches on. As it moves forward, so too does the age of our infrastructure. GCWW continued rehabilitating some of our older water mains by cleaning, relining and testing mains on selected streets in Fairfax and Mariemont. Rehabilitation, a more cost-effective and less intrusive method than traditional replacement, extends the life of a main another 50 years. Throughout the process, which is expected to be completed for Fairfax and Mariemont customers in mid-2005, GCWW has coordinated efforts with local governments and fire departments and kept affected customers informed.

## Tapping in to Clear Water

Used to improve water clarity and quality, the 47 rapid sand filters at the Richard Miller Treatment Plant were upgraded during 2004 with new surface sweeps. These sweeps were installed after an in-house study suggested they would improve sand filter operating efficiency and keep GCWW ahead of upcoming government regulations.



### Bringing Form to our Function

*This past year, the front lobby of the Richard Miller Treatment Plant became a little more pleasing to the eye with the addition of a new fountain. The fountain was funded in part by a generous gift from former GCWW Director Richard Miller — for whom the plant is named — and his wife, Sis.*



*We undertook a number of key measures this past year to deliver better, faster, more personalized customer service, from improving the format of bills to implementing groundbreaking new technologies such as expert call routing. Because, for GCWW, how we treat our customers is just as important as how we treat our water.*

## Delivering a Better Bill

You may not always enjoy receiving bills, but at GCWW, we believe you should at least be able to read and understand them. In August, we introduced a new billing statement, updating the previous version which had not been changed since 1996. The revised statement incorporates more color and highlights. It also improves readability with features such as a larger font size and a graph showing account consumption history. In addition, we can now tailor messages by account, sending customized notes to specific customers or sets of customers as needed.

## Unveiling a New Way to Pay

For years, Greater Cincinnati Water Works has maintained an information-filled Internet presence. In April, we took steps to become even more interactive by implementing the new Electronic Customer Account Management (ECAM) technology. With ECAM, customers gained the ability to review billing information, check meter reading dates and make credit and debit card payments online. Plus they can get questions answered via email. By the end of 2004, nearly 7,000 customers had signed on for this service, performing nearly 10,000 transactions, sending over 500 emails to agents and tendering more than \$1 million in payments.



***With the addition of online bill payment, customers now have six ways to pay bills:***

- 1** | online
- 2** | by mail
- 3** | by phone
- 4** | through automatic account transfer using BillPayer 2000 system
- 5** | using the night deposit box for after-hours drop off
- 6** | in person during normal operating hours

### GCWW Quick Fact

*GCWW billed more than 275,000 active accounts for one or more services (water, fire protection, sewer, stormwater and trash collection) in 2004.*

## Building on Success

Implemented in 2003, H<sub>2</sub>O Radio continues to enhance customer service. Because the system enables meters to be read via radio waves, it eliminates the need for meter readers to enter homes, bringing an added level of convenience to the customer. It delivers benefits for GCWW as well, such as accurate and timely meter readings and improved cost effectiveness. The project continues to be implemented on schedule, with all meters scheduled to be upgraded to the H<sub>2</sub>O Radio technology by 2007. During 2004, nearly 50,000 meters were upgraded, bringing the total number to more than 70,000.



## H<sub>2</sub>O Radio

*As one of the largest rollouts of drive-by meter reading systems in the country, GCWW's implementation of the technology has captured the interest of water utilities throughout the world. Visitors from as close as Louisville and as far away as Tokyo have come to see our implementation first hand and learn about the benefits H<sub>2</sub>O Radio can deliver.*

## Dedicated to Service

At GCWW, our commitment to customer service is unwavering. We continually monitor our customer service tools and frequently upgrade them to provide an optimal experience at every customer touch point. We are proud that the results reflect our efforts at improvement. A 2004 survey conducted by the *Institute of Policy Research* at the University of Cincinnati reported stellar ratings:

- **Satisfaction with Problem Solving & Questions: 89.7%**
- **Courteousness of GCWW Employees: 94.4%**



## Strengthening our Technology

*Customer service may be a very personal thing, but at GCWW, technology plays a leading role in how that service is delivered. Among the technologies implemented and/or upgraded to enhance customer service in 2004 were these key tools:*

### Expert Agent Selection

Through the implementation of this software, incoming calls to GCWW can be directed to a select group of agents specifically trained to address the particular needs of callers.

### Interaction Center

This technology enables pertinent account information to be automatically displayed on the responding agent's computer screen as soon as the call is answered.

### Interactive Voice Response

Our IVR system, which helps manage incoming calls, was upgraded this past year to increase customer self-service capabilities.

### Blue Pumpkin

In 2004, GCWW installed this workforce scheduling application, which helps optimize agent scheduling in order to provide more timely response to customer calls.



*At Greater Cincinnati Water Works, providing clean, safe and pure water is what we do. We not only actively work to improve our processes, but our engineers, chemists, biologists and other personnel are at the forefront of research in the field. Through these efforts, GCWW constantly creates new ways to ensure the availability of the best possible quality of water.*

## Modeling Water Quality

GCWW built a dynamic water quality model of the water distribution system to more efficiently and effectively monitor the quality of water. This model, which looks at summer and winter operational conditions, helps determine current and future water conditions. Activities involved included determining infrastructure improvement requirements, testing the impact of operational changes on quantity and quality, predicting water quality, assessing the ability to comply with current and future regulatory requirements and planning security measures.

## Taking the Lead in Water Research

Just as GCWW was at the forefront of water quality research with the study and implementation of our granular activated carbon (GAC) process, today we are once again making strides in new water quality techniques. Questions regarding the vulnerability of the Ohio River watershed to contamination led GCWW to initiate an in-depth study of ultraviolet (UV) disinfection. In 2004, the study, in which early results showed a potential for improving water quality in a cost-effective manner, received the American Academy of Environmental Engineers' prestigious National Honor Award and an Outstanding Achievement Award from The American Council of Engineering Companies of Ohio.



### GCWW Quick Fact

*Only 3-4% of the water treated and distributed by Greater Cincinnati Water Works is used for drinking! Other uses include manufacturing, fire suppression, cleaning, watering lawns and more.*

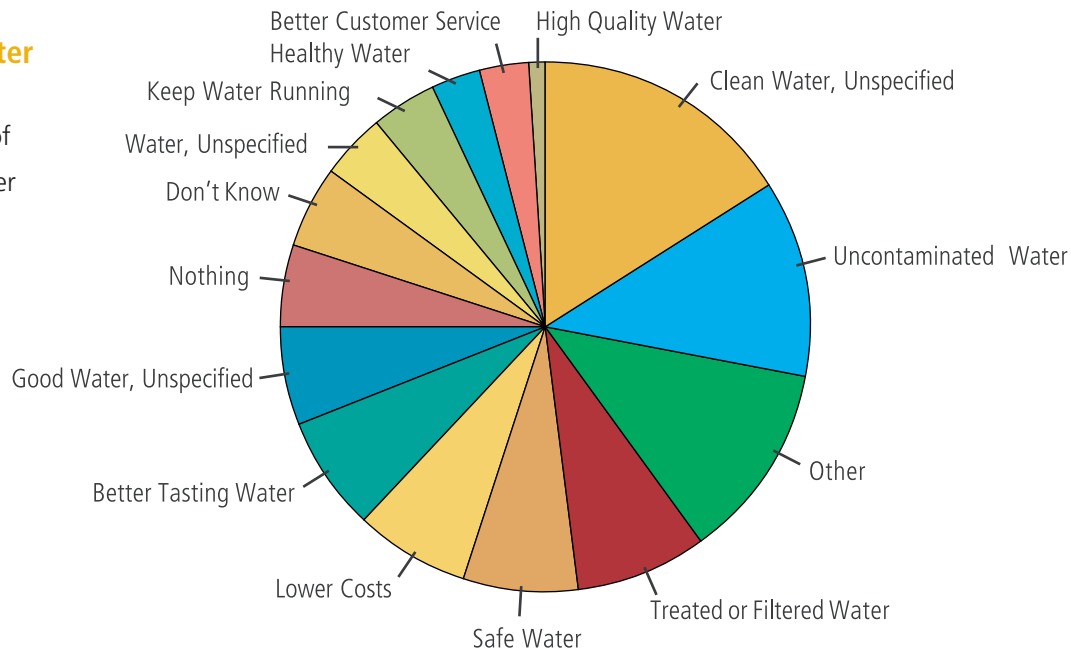
## Improving Water Quality

To maintain a sufficient water supply, storing water is a necessary part of what we do. Yet stored water ages, and as it does, quality could decrease. GCWW developed a detailed model which calculates the age of water in storage thereby helping to maintain the delicate balance between having enough water in storage and having the highest quality of water. The use of the model enables GCWW personnel to make these calculations on a regular basis, ensuring the highest possible water quality.

## Providing Clean Water

According to a survey of Greater Cincinnati Water Works customers, the most important thing that GCWW can do is provide clean water.

SOURCE: University of Cincinnati, Institute for Policy Research, Spring 2004



## Who would you call?

*Everyone knows to call 911 during a fire, but in cases of the biggest emergencies, who do firefighters call?*

Greater Cincinnati Water Works, of course! Providing water for fire suppression is one of the most enduring and necessary reasons we are in business. Yet our assistance to emergency personnel goes well beyond just delivering water through fire hydrants and ensuring water towers are in working order to maintain water pressure. Our personnel can often be found working in tandem with firefighters. For example, our employees were on the scene at two major fires during 2004: Queen City Barrel fire in Queensgate and the Stearns & Foster fire in Lockland. During these events, GCWW personnel assisted firefighters in getting the most water where and when they needed it, while ensuring that area residents did not lose water pressure or supply.



## A wellspring of knowledge

*During 2004, GCWW personnel:*

- Participated in more than 42,000 hours of safety and other job-related training
- Achieved or renewed 41 certifications
- Won four industry awards
- Delivered 18 presentations at industry conferences
- Authored 9 papers and/or articles





# General Operational Data

General Operational Data			
	Miller Plant	Bolton Plant	Mason Plant**
<b>Raw Water Pumped*</b>	43,476,420,000 Gallons	6,017,000,000 Gallons	553,529,000 Gallons
<b>Finished Water Delivered for Consumption*</b>	42,269,284,000 Gallons	5,675,857,000 Gallons	535,818,600 Gallons
<b>Filtered Water Used in Washing Filters</b>	871,071,000 Gallons	41,029,000 Gallons	25,697,000 Gallons
% Used – Average	2.1%	0.7%	4.7%
% Used – Maximum Month	(November) 3.1%	(June) 0.9 %	—
% Used – Minimum Month	(February) 1.0%	(December) 0.5%	—
<b>Total Number of Filter Washes</b>	4,571	269	—
Maximum Month	(November) 572	(April) 29	—
Minimum Month	(January) 199	(November) 16	—
<b>Period of Filter Service, Average Hours</b>	45.8 Hours	153.4 Hours	—
Maximum Month	(January) 69.0 Hours	—	—
Minimum Month	(November) 26.0 Hours	—	—
<b>Finished Water Delivered for Consumption*</b>	42,269,284,000 Gallons	5,675,857,000 Gallons	535,818,600 Gallons
Maximum – Gallons per Day	(July 21) 151,260,000 Gallons per Day	(July 20) 23,052,000 Gallons per Day	(July 1) 3,165,200 Gallons per Day
Minimum – Gallons per Day	(November 26) 91,377,000 Gallons per Day	(November 28) 9,691,000 Gallons per Day	(November 25) 34,200 Gallons per Day
Average/Day/Year	115,489,847 Gallons	15,507,806 Gallons	1,613,911 Gallons
Maximum Month	(August) 4,086,460,000 Gallons	(July) 537,856,000 Gallons	(July) 64,589,400 Gallons
Average Day/Maximum Month	131,820,000 Gallons	17,350,000 Gallons	2,083,529 Gallons
Minimum Month	(November) 3,137,109,000 Gallons	(November) 427,367,000 Gallons	(November) 27,669,800 Gallons
Average Day/Minimum Month	104,570,000 Gallons	14,246,000 Gallons	988,207 Gallons

\*Values reported to OEPA

\*\*Until November 2004, the North Service Area received water from the Shaker Creek Aquifer which was treated at the Mason Plant. Effective November 29, 2004, all customers in the North Service Area of Mason began receiving all their water from the Miller and Bolton plants.

Microbiological Data					
	Total Coliform Bacteria			Giardia Cysts per 100 Liters	Cryptosporidium Oocysts per 100 Liters
Finished Water	% Positive Samples	Maximum Monthly %	Minimum Monthly %		
Miller Finished Water	0%	0%	0%	none detected	none detected
Bolton Finished Water	0%	0%	0%	—	—
GCWW Distribution System	< MCL*	< MCL*	< MCL*	—	—
Mason Distribution System	< MCL*	< MCL*	< MCL*	—	—
Miller Raw Water – Detections	Coliform Bacteria per 100 Milliliters				
% Positive Samples	100%			4.2%	0%
Average of Detections	6,159			10	none detected
Maximum Monthly Average	24,955			5	none detected
Maximum Day	53,800			10	none detected
Minimum Monthly Average	684			none detected	none detected
Minimum Day	20			none detected	none detected
Bolton Raw Water – Detections	0%			—	—
% Positive Samples	—			—	—
Average	—			—	—
Maximum Monthly Average	—			—	—
Maximum Day	—			—	—
Minimum Monthly Average	—			—	—
Minimum Day	—			—	—
A total of 3,710 samples were analyzed				A total of 52 samples were analyzed	A total of 41 samples were analyzed

\* OEPA MCL for total coliforms requires that no more than 5.0 percent of the total number of samples during a month are total coliform-positive.

Maximum Contaminant Level or MCL: The highest level of a Contaminant that is allowed in drinking water.

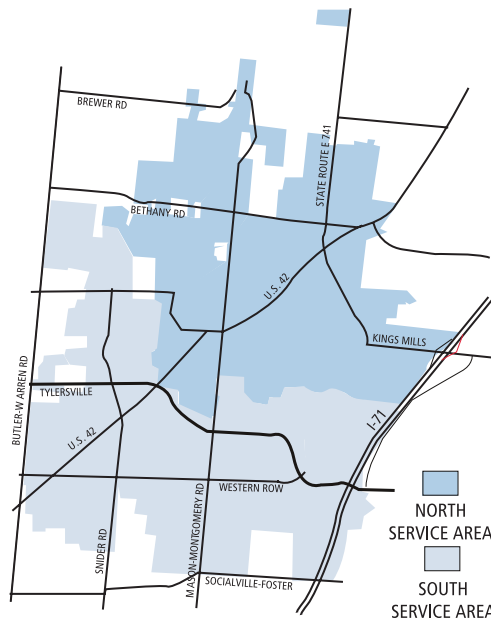
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## Monitoring Protects Health

A computerized early warning organic detection system — the first such system in the United States — warns treatment plants downstream of spills so that measures can be taken before the spill reaches the suppliers' intakes. Water utilities along the Ohio River developed the system in conjunction with ORSANCO (Ohio River Sanitation Commission). Fifteen monitoring stations are strategically located along the Ohio River.

### Mason Service Area & Map



Until November 2004, the North Service Area received water from the Shaker Creek Aquifer which was treated at the Mason Plant. Effective November 29, 2004, all customers in the North Service Area of Mason began receiving all their water from the Miller and Bolton plants.

## Great Miami Aquifer Service Area

Colerain Township	New Burlington
College Hill*	North College Hill
Crosby Township	Northgate
Dent*	Pleasant Run
Finneytown*	Springfield Township
Forest Park*	Venice Gardens
Miamitown	White Oak*
Monfort Heights*	White Water Township
Mt. Healthy*	

*\*These communities may get water from both the Miller and Bolton Plants.*

## Ohio River Service Area

Amberley Village	Madisonville
Anderson Township	Mariemont
Avondale	Miami Heights*
Blue Ash*	Montgomery
Bond Hill	Mt. Airy*
California	Mt. Auburn
Cherry Grove	Mt. Lookout
Cheviot*	Mt. Washington
Clifton	Newtown
Corryville	Northside
Covedale	Norwood
Cumminsville	Oakley
Deer Park	Pleasant Ridge
Delhi & Delhi Twp.	Price Hill
Downtown	Reading
East End	Roselawn
Elmwood Place	St. Bernard
Evanston	Saylor Park
Evendale	Sharonville*
Fairfax	Silverton
Golf Manor	Springdale*
Green Township*	Sycamore Township*
Greenhills*	Symmes Township
Hyde Park	Walnut Hills
Kennedy Heights	West End
Kenwood	Western Hills*
Lincoln Heights	Westwood*
Mack*	Winton Place
Madeira	Woodlawn

*\*These communities may get water from both the Miller and Bolton Plants.*



## Raw Water Comparison of Selected Parameters

	Miller Plant		Bolton Plant		Mason Plant	
	Average	Range	Average	Range	Average	Range
Turbidity (NTU)	69	5.0 - 704	0.05	0.04 - 0.16	0.45	0.06 - 8.30
Total Alkalinity (as CaCO <sub>3</sub> )	64	40 - 92	221	116 - 238	323	260 - 356
Total Hardness (as CaCO <sub>3</sub> )	120	83 - 167	297	270 - 394	549	535 - 588
Calcium (as Ca)	34	25 - 42	80	71 - 93	141	105 - 158
Magnesium (as Mg)	9.1	5.6 - 11.9	24	14 - 67	49	40 - 65
pH (Units)	7.6	6.9 - 8.1	7.4	7.3 - 7.8	7.3	7.1 - 7.7
Chloride	25	6 - 38	51	43 - 57	—	—
Fluoride	0.14	0.08 - 0.24	0.30	0.26 - 0.34	0.21	0.14 - 0.32
Sulfate	66	40 - 82	74	47 - 220	—	—
Nitrate (as NO <sub>3</sub> -N)	1.10	0.82 - 1.33	2.26	1.58 - 3.01	< 0.05	< 0.05 - < 0.05
Iron (as total Fe)	2.70	0.29 - 10.2	—	—	2.9	2.1 - 4.1
Arsenic	—	—	—	—	0.0078	0.0037 - 0.0161
Manganese (as total Mn)	0.17	0.04 - 0.49	—	—	0.13	0.10 - 0.16
Sodium	17	10 - 26	—	—	—	—
Total Solids	280	133 - 866	—	—	—	—
Total Dissolved Solids	210	127 - 299	—	—	645	440 - 812
Total Organic Carbon	2.67	1.61 - 4.46	0.88	0.71 - 1.07	0.68	0.66 - 0.70
Phosphate (as PO <sub>4</sub> -P)	—	—	—	—	—	—
Chlorine Residual, Free	—	—	—	—	—	—
Chlorine Residual, Total	—	—	—	—	—	—

In mg/l Except Where Noted

Until November 2004, the North Service Area received water from the Shaker Creek Aquifer which was treated at the Mason Plant. Effective November 29, 2004, all customers in the North Service Area of Mason began receiving all their water from the Miller and Bolton plants.



## Finished Water Comparison of Selected Parameters

	Miller Plant		Bolton Plant		Mason Plant	
	Average	Range	Average	Range	Average	Range
Turbidity (NTU)	0.06	0.04 - 0.13	0.04	0.03 - 0.06	0.08	0.04 - 0.98
Total Alkalinity (as CaCO <sub>3</sub> )	70	48 - 99	81	69 - 93	333	319 - 354
Total Hardness (as CaCO <sub>3</sub> )	125	95 - 169	153	136 - 171	518	488 - 540
Calcium (as Ca)	35	28 - 44	26	19 - 34	144	134 - 158
Magnesium (as Mg)	8.9	4.6 - 15.0	21	17 - 26	34	34 - 41
pH (Units)	8.6	8.4 - 9.0	9.1	8.7 - 9.6	7.5	7.3 - 7.8
Chloride	27	19 - 39	53	48 - 57	—	—
Fluoride	0.96	0.83 - 1.15	0.96	0.88 - 1.08	0.98	0.85 - 1.16
Sulfate	72	58 - 88	50	47 - 52	—	—
Nitrate (as NO <sub>3</sub> -N)	1.06	0.77 - 1.31	2.27	1.32 - 3.12	< 0.05	< 0.05 - < 0.05
Iron (as total Fe)	< 0.05	< 0.05 - < 0.05	—	—	0.029	< 0.008 - 0.127
Arsenic	—	—	—	—	< 0.0025	< 0.0025 - < 0.0025
Manganese (as total Mn)	< 0.01	< 0.01 - < 0.01	—	—	0.011	0.005 - 0.027
Sodium	23	19 - 28	—	—	—	—
Total Solids	225	111 - 314	285	239 - 311	—	—
Total Dissolved Solids	225	111 - 314	285	239 - 311	—	—
Total Organic Carbon	0.8	0.3 - 1.1	0.79	0.74 - 0.97	0.52	0.20 - 0.69
Phosphate (as PO <sub>4</sub> -P)	0.12	0.08 - 0.15	0.15	0.11 - 0.23	—	—
Chlorine Residual, Free	0.97	0.80 - 1.25	1.00	0.81 - 1.16	0.92	0.46 - 1.38
Chlorine Residual, Total	1.02	0.84 - 1.34	1.07	0.85 - 1.23	1.10	0.57 - 1.60

In mg/l Except Where Noted

THE FOLLOWING WERE NOT DETECTED IN OUR FINISHED WATER: \* **Inorganics:** Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Nitrite, Selenium, Thallium, Silver, Zinc. **Pesticides and Other Synthetic Organic Compounds:** Alachlor, Atrazine, Benzo[a]pyrene, Carbofuran, Chlordane(total), Dalapon, Dibromochloropropane, Di(2-ethylhexyl) adipate, Di(2-ethylhexyl) phthalate, 2,4-D, Dinoseb, Diquat, Endothal, Endrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, PCB's (total), Simazine, 2,3,7,8-TCDD (Dioxin), Toxaphene, 2,4,5-TP (Silvex), Aldicarb, Aldrin, Butachlor, Bromacil, Carbaryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Propachlor. **Volatile Organic Chemicals:** Trichloroethene, Benzene, Carbon tetrachloride, 1,2-Dichloroethane, Vinyl Chloride, 1,1-Dichloroethene, 1,1,1-Trichloroethane, 1,4-Dichlorobenzene, cis-1,2-Dichloroethene, Tetrachloroethene, 1,2-Dichlorobenzene, trans-1,2-Dichloroethene, Chlorobenzene, Styrene, Toluene, Xylenes (total), 1,2-Dichloropropane, 1,1,2-Trichloroethane, Dichloromethane, Ethylbenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Dichlorodifluoromethane, Dibromomethane, 1,3-Dichloropropane, Chloromethane, Bromomethane, Bromochloromethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1-Dichloropropene, Chloroethane, 1,3-Dichloropropene, Hexachlorobutadiene, Naphthalene, tert-Butylbenzene, 4-Isopropyltoluene, Trichlorofluoromethane, sec-Butylbenzene, 1,1-Dichloroethane, Bromobenzene, Isopropylbenzene, n-Propylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,3-Dichlorobenzene, 1,2,3-Trichlorobenzene, 1,2,4-Trimethylbenzene, n-Butylbenzene, 1,3,5-Trimethylbenzene. **Radiological:** Combined Radium (pCi/L), Alpha-Gross (pCi/L), Strontium-90 (pCi/L)

\*Some analyses not required or performed in 2004, most recent results shown.

The tables below show the substances reported in the GCWW 2004 Safe Drinking Water Report which was prepared to meet the EPA's National Primary Drinking Water Regulation for Consumer Confidence Reports. All of the regulated substances were well within the limits the EPA has set to ensure the safety of tap water. For more information on the potential health effects of various substances, call the EPA's Safe Drinking Water Hotline at 1(800) 426-4791 or visit [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html).

Consumers may request printed copies of the Safe Drinking Water Report or view the entire GCWW 2004 Safe Drinking Water Report at [www.cincinnati-oh.gov/gcww](http://www.cincinnati-oh.gov/gcww).

## Regulated Contaminants

Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT)\*. These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health and are known or anticipated to occur in public water systems.

Substance (Unit)	Maximum Allowed (MCL*)	MCLG*	Miller Water (from the Ohio River)				Bolton Water (from the Great Miami Aquifer)				Mason Water <sup>3</sup> - North Service Area (from the Shaker Creek Aquifer)		
			Highest Compliance Level Detected	Range of Detections	Violation	Year Sampled	Highest Compliance Level Detected	Range of Detections	Violation	Year Sampled	Highest Compliance Level Detected	Range of Detections	Violation
Fluoride (ppm)	4	4	1.15	0.83 - 1.15	No	2004	1.08	0.88 - 1.08	No	2004	1.16	0.85 - 1.16	No
Nitrate (ppm)	10	10	1.31	0.77 - 1.31	No	2004	3.12	1.32 - 3.12	No	2004	nd	nd	No
Total Trihalomethanes (ppb)	80	na	29.0	17.8 - 46.8	No	2004	30.1	17.8 - 51.3	No	2004	14.4	10.5 - 20.2	No
Haloacetic Acids (ppb)	60	na	9.73	2.53 - 13.1	No	2004	11.0	3.60 - 14.6	No	2004	7.01	2.94 - 8.70	No
Gross Beta (pCi/L)	50	0	nd	nd	No	2003	4.8	na	No	2001	na	na	na
Turbidity (NTU)	TT1 < 1 NTU Max and TT2 < 0.3 NTU 95% of the time	na na	0.13 100% < 0.3 NTU	0.04 - 0.13	No	2004	nr	nr	na	na	nr	nr	na
Lead <sup>2</sup> (ppb)	AL = 15	0	90th percentile 8.1	nd-31.3	No	2004	90th percentile 8.1	nd-31.3	No	2004	90th percentile 6.5	nd - 42.3	No
			(5 out of 107 samples tested were > the AL)				(5 out of 107 samples tested were > the AL)				(1 out of 32 samples tested were > the AL)		
Copper <sup>2</sup> (ppm)	AL = 1.3	1.3	90th percentile 0.0212	nd-0.0462	No	2004	90th percentile 0.0212	nd-0.0462	No	2004	90th percentile 0.387	0.0656 - 0.675	No
			(0 out of 107 samples tested were > the AL)				(0 out of 107 samples tested were > the AL)				(0 out of 32 samples tested were > the AL)		
Total Organic Carbon	TT <sup>1</sup>	na	2.54	1.59 - 3.60	No	2004	nr	nr	na	na	nr	nr	na
Total Chlorine <sup>2</sup> (ppm)	MRDL=4	MRDLG=4	0.92	0.76 - 1.04	No	2004	0.92	0.76 - 1.04	No	2004	0.91	0.73 - 0.96	No
Barium (ppm)	2	2	nd	na	No	2004	nd	na	No	2003	0.15	na	No

## Unregulated Contaminants

Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

Substance (Unit)	MCLG*	Miller Water				Bolton Water				Mason Water <sup>3</sup>				Typical Source of Contamination
		Avg. Level Detected	Range of Detections	Violation	Year Sampled	Avg. Level Detected	Range of Detections	Violation	Year Sampled	Avg. Level Detected	Range of Detections	Violation	Year Sampled	
Chloroform (ppb)	na	2.96	na	na	2004	1.31	na	na	2003	1.23	na	na	2004	Byproducts of drinking water disinfection, measured at the point of entry to distribution system
Bromodichloromethane (ppb)	0	3.17	na	na	2004	3.36	na	na	2003	2.40	na	na	2004	
Dibromochloromethane (ppb)	60	3.25	na	na	2004	7.76	na	na	2003	1.97	na	na	2004	
Bromoform (ppb)	0	0.79	na	na	2004	7.87	na	na	2003	nd	na	na	2004	
Sulfate (ppm)	na	72	59-82	na	2004	50	48-52	na	2004	139	129-148	na	2002	Erosion of natural deposits

Year Sampled	Typical Source of Contamination (for more details, visit <a href="http://www.epa.gov/safewater/hfacts.html">www.epa.gov/safewater/hfacts.html</a> )
2004	Additive which promotes strong teeth. May come from erosion of natural deposits.
2004	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
2004	Byproduct of drinking water disinfection, measured in the distribution system.
2004	Byproduct of drinking water disinfection, measured in the distribution system.
na	Decay of natural and man-made deposits. (EPA considers 50 pCi/L to be the level of concern.)
na	Soil runoff
2004	May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customer taps, as required by the Safe Drinking Water Act to ensure safe water.
2004	
na	Naturally present in the environment.
2004	Water additive used to control microbes.
2004	Discharge from drilling waste & metal refineries. Erosion of natural deposits.

## Abbreviations

<b>ppb:</b>	parts per billion or micrograms per liter
<b>ppm:</b>	parts per million or milligrams per liter
<b>nr:</b>	not regulated
<b>na:</b>	not applicable
<b>NTU:</b>	Nephelometric Turbidity Unit, used to measure clarity in drinking water
<b>nd:</b>	not detectable at testing limits
<b>pCi/L:</b>	picoCuries per liter, a measure of radioactivity in water

## \*Definitions

**Maximum Contaminant Level Goal or MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Action Level or AL:** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**Maximum Residual Disinfection Level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfection Level Goal or MRDLG:** The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

## Foot Notes

<sup>1</sup>The value reported under “Highest Compliance Level Detected” for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

<sup>2</sup>Miller and Bolton were considered as one system for regulatory purposes by Ohio EPA during 2004. Data listed for each system represents the combined system.

<sup>3</sup>Until November 2004, the North Service Area received water from the Shaker Creek Aquifer which was treated at the Mason Plant. Effective November 29, 2004, all customers in the North Service Area of Mason began receiving all their water from the Miller and Bolton plants.

## Greater Cincinnati Water Works Statement of Net Assets

### December 31, (000's omitted)

ASSETS	2004	2003
<b>Current Assets</b>		
Cash and Cash Equivalents	\$ 370	\$ 543
Equity in City Treasury Cash	15,939	17,966
Receivables:		
Accounts, Net	14,975	13,611
Accrued Interest	202	370
Due from Other Funds	922	972
Due from Other Governments	10,593	10,067
Prepaid Items	261	611
Inventory	3,723	3,461
Advances to Other Funds	252	295
Restricted Assets:		
Cash and Cash Equivalents	18,695	18,246
Equity in City Treasury Cash	4,640	4,961
Investments at Fair Value	0	49,984
<b>Noncurrent</b>		
Equity in City Treasury Cash	13,195	20,989
Restricted Equity in City Treasury Cash	3,841	5,796
Accounts Receivable	20	116
Land	2,606	2,610
Buildings	168,825	167,670
(Accumulated Depreciation)	(55,202)	(51,597)
Improvements	397,160	366,099
(Accumulated Depreciation)	(53,462)	(50,215)
Machinery and Equipment	174,294	162,170
(Accumulated Depreciation)	(90,212)	(82,019)
Construction in Progress	119,473	97,276
<b>Total Assets</b>	<b>\$ 751,110</b>	<b>\$ 759,982</b>

LIABILITIES	2004	2003
<b>Current</b>		
Accounts Payable	\$ 1,891	\$ 2,116
Due to Other Funds	476	375
Due to Other Governmental Agencies	494	1,529
Accrued Payroll	1,529	1,078
Accrued Interest	155	204
Deferred Revenue	5,630	5,952
Compensated Absences Payable	2,640	2,479
Unpaid Claims Payable	79	74
Ohio Public Works Commission Loan	25	0
General Obligation Bonds Payable	10,130	11,830
Revenue Bonds Payable	7,240	7,010
Payable from Restricted Assets:		
Construction Contracts	2,725	7,321
Deposits Payable	536	770
<b>Noncurrent</b>		
Compensated Absences Payable	3,245	2,978
Arbitrage Liability	400	1,210
Ohio Public Works Commission Loan	950	0
Revenue Bonds Payable	185,060	192,300
General Obligation Bonds Payable	31,380	41,510
<b>Total Liabilities</b>	<b>\$ 254,585</b>	<b>\$ 278,736</b>
<b>NET ASSETS</b>		
Invested in Capital Assets, Net of Related Debt	450,591	367,034
Reserved for Restricted Assets	2,996	63,206
Unrestricted	42,938	51,006
<b>Total Net Assets</b>	<b>\$ 496,525</b>	<b>\$ 481,246</b>

The accompanying notes are an integral part of this financial statement.

## Greater Cincinnati Water Works Statement of Revenues, Expenses and Changes in Fund Net Assets For the Year Ended December 31, (000's omitted)

OPERATING REVENUES			NONOPERATING REVENUES (EXPENSES)		
	2004	2003		2004	2003
Metered Water Revenue	\$ 82,748	\$ 79,528	Loss on Disposal of Fixed Assets	\$ (828)	\$ (323)
Service Charges	1,310	1,246	Interest Revenue	1,945	2,041
Nonmetered Water Revenue	176	217	Interest Expense	(7,164)	(8,234)
Servicing Customers Installations	1	13			
Miscellaneous Revenue	3,829	4,018	<b>Nonoperating Revenues (Expenses)</b>	<b>\$ (6,047)</b>	<b>\$ (6,516)</b>
Operating Interest Revenue	336	248			
Rental Income	116	111	<b>Income Before Contributions &amp; Transfers</b>	<b>10,216</b>	<b>10,278</b>
Department of Sewers and Stormwater Management for Billing and Collection Services	5,072	4,749	Capital Contributions	5,063	8,661
Mason Fees	1,074	1,402			
Purchasing Agent Sales Revenue	44	24	<b>Change In Net Assets</b>	<b>15,279</b>	<b>18,939</b>
			Net Assets at January 1,	481,246	462,307
			<b>Net Assets at December 31,</b>	<b><u>\$ 496,525</u></b>	<b><u>\$ 481,246</u></b>
<b>Total Operating Revenues</b>	<b>\$ 94,706</b>	<b>\$ 91,556</b>			
<b>OPERATING EXPENSES</b>					
Personal Services	34,703	31,741			
Contractual Services	8,555	8,692			
Maintenance and Repair	3,170	3,006			
Materials and Supplies	5,389	6,256			
Utilities	7,911	8,007			
Insurance	205	264			
Taxes	1	1			
Rent	989	656			
Other	507	482			
Depreciation and Amortization	16,950	15,597			
Amortization Mason Agreement	63	60			
<b>Total Operating Expenses</b>	<b>\$ 78,443</b>	<b>\$ 74,762</b>			
<b>Operating Income</b>	<b>\$ 16,263</b>	<b>\$ 16,794</b>			

The accompanying notes are an integral part of this financial statement.



## Greater Cincinnati Water Works Statement of Cash Flows, Direct Method for the Year Ended December 31, (000's omitted)

<b>Cash Flow From Operating Activities:</b>	<b>2004</b>	<b>2003</b>
Receipts from Customers	\$ 92,897	\$ 91,507
Payments to Suppliers	(28,026)	(28,597)
Payments to Employees	(33,823)	(31,775)
Payments for Property Taxes	(1)	(1)
<b>Net Cash Provided (Used) by Operating Activities</b>	<b>31,047</b>	<b>31,134</b>
<b>Cash Flow From Non Capital Financing Activities:</b>		
Repayments of Advances Made to Other Funds	43	42
<b>Net Cash Used By Non Capital Financing Activities</b>	<b>43</b>	<b>42</b>
<b>Cash Flow From Capital and Related Financing Activities:</b>		
Capital Contributed by Other Sources	1,734	1,142
Proceeds from Sale of Fixed Assets	141	60
Additions to Construction in Progress	(58,465)	(69,442)
Acquisition of Property, Plant and Equipment	(12,208)	(2,382)
Interest Paid on Bonds	(7,535)	(4,722)
Proceeds from Sale of Bonds	0	112,360
Proceeds from Ohio Public Works Bonds	1,000	0
Principal Paid on Bonds	(18,840)	(17,405)
Principal Paid on Ohio Public Works Bonds	(25)	0
Principal Paid on Long Term Capital Leases	0	(4)
<b>Net Cash Used by Capital &amp; Related Financing Activities</b>	<b>(94,198)</b>	<b>19,607</b>
<b>Cash Flow from Investing Activities:</b>		
Interest and Dividends on Investments	1,303	2,341
Investments Purchased	49,984	(49,984)
<b>Net Cash Provided by Investing Activities</b>	<b>51,287</b>	<b>(47,643)</b>
<b>Net Increase (Decrease) in Cash &amp; Cash Equivalents</b>	<b>(11,821)</b>	<b>3,140</b>
Cash and Cash Equivalents at Beginning of Year	68,501	65,361
<b>Cash and Cash Equivalents at End of Year</b>	<b>\$ 56,680</b>	<b>\$ 68,501</b>

<b>Reconciliation of Operating Income to Net Cash Provided (Used) by Operating Activities:</b>	<b>2004</b>	<b>2003</b>
Operating Income	\$ 16,263	\$ 16,794
Depreciation and Amortization	17,013	15,657
Changes In Assets and Liabilities:		
(Increase) Decrease in:		
Receivables	(1,269)	209
Due from Other Funds	50	(117)
Due from Other Governments	(589)	(145)
Prepaid Assets	350	(582)
Inventory	(262)	481
Increase (Decrease) in:		
Accounts Payable	(225)	(203)
Accrued Payroll	451	(23)
Deposits Payable	(234)	(252)
Due to Other Funds	101	(20)
Due to Other Governments	(1,035)	(609)
Liability for Compensated Absences	428	(10)
Estimated Liability for Unpaid Claims	5	(46)
<b>Net Cash Provided (Used) by Operating Activities</b>	<b>\$ 31,047</b>	<b>\$ 31,134</b>
<b>Schedule of Noncash Investing, Capital and Financing Activities</b>		
Acquisition of Property, Plant and Equipment from Contributed Capital	\$ 3,328	\$ 7,519
<b>Total Noncash Investing, Capital and Financing Activities</b>	<b>\$ 3,328</b>	<b>\$ 7,519</b>

The accompanying notes are an integral part of this financial statement.

## Greater Cincinnati Water Works Notes to Financial Statements December 31, 2004

### Summary of Significant Accounting Policies

The Greater Cincinnati Water Works is a municipally owned and operated utility. The financial statements of the Greater Cincinnati Water Works are included in the Comprehensive Annual Financial Report of the City of Cincinnati. An annual audit of the financial statements of the City of Cincinnati is performed by or at the direction of the Auditor of State.

**Deposits and Investments with Financial Institutions** — Cash balances of the Greater Cincinnati Water Works are included in a pool of City Treasury Cash. The City Treasurer determines the amounts to be kept on hand to meet current obligations and amounts and timing of investments. All deposits and investments by the City are insured by the Federal Deposit Insurance Corporation or some other instrumentality of the Federal government, or are covered by securities held by the City or its agent in the City's name.

**Accrued Interest Receivable** — Interest receivable on Greater Cincinnati Water Works funds has been accrued and recognized as revenue for 2004 and 2003; the amounts are \$202,000 and \$370,000 respectively.

**Inventories of Materials and Supplies** — Inventories are valued at cost which are determined on the moving average basis.

**Restricted Assets and Related Liabilities and Reserves** — Assets, the uses of which are restricted by City Council ordinance for improvements, extensions and construction of the system, are segregated on the balance sheet.

**Fixed Assets and Depreciation** — Fixed Assets are stated at cost and are depreciated by the straight-line method over estimated useful lives up to 100 years. Typical lives are as follows:

Buildings — 67 Years

Transmission and Distribution Mains — 100 Years

Machinery and Equipment — 3 to 30 Years

**Capitalization of Interest** — Interest is capitalized by the Greater Cincinnati Water Works when it is determined to be material. The Water Works capitalizes interest in accordance with Statement of Financial Accounting Standard No. 62, Capitalization of Interest Costs in Situations Involving Certain Tax Exempt Borrowing and Certain Gifts and Grants. The statement requires that the interest cost capitalized during construction be reduced by interest income earned on investments of the bond proceeds from the date of the borrowing until the assets constructed from the bond proceeds are ready for their intended use. The capitalized interest for December 31, 2004 was \$4,241,000 and for the year ending December 31, 2003 was \$2,803,000.

**Compensated Absences** — NCGA Statement 4 requires state and local governments to recognize the liabilities associated with employees' compensated absences. Therefore, the following obligations have been included in the Greater Cincinnati Water Works Comparative Statement of Long-Term Liabilities:

**Vacation** — Vacation benefits are considered to be vested benefits of the employees. The obligation at December 31, 2004 for vacation benefits of Greater Cincinnati Water Works employees is approximately \$2,783,000.

**Sick Leave** — Sick leave benefits are included in the estimated liability for the employees, based upon the portion of accumulated sick leave liability that is estimated to eventually be paid as a retirement or death benefit. At December 31, 2004 this liability is approximately \$3,030,000 for Greater Cincinnati Water Works employees.

**Compensatory Time** — Employees are permitted to accumulate Compensatory Time for work in excess of their normal forty-hour week. The amount of the obligation at December 31, 2004 is \$72,000.

#### The following is a Summary of the Changes in the Estimated Liability for Compensated Absences of the Greater Cincinnati Water Works for the year ended December 31, 2004 (000's omitted):

	Accrued Vacation	Accrued Sick Pay	Compensatory Time	Total
Estimated Liability for Compensatory Absences January 1, 2004	\$2,701	\$2,685	\$71	\$5,457
Earned During 2004	1,873	1,215	42	3,130
Used/Forfeited During 2004	(1,791)	(870)	(41)	(2,702)
Estimated Liability for Compensatory Absences December 31, 2004	\$2,783	\$3,030	\$72	\$5,885

**Pension Plans** — Full time employees of the Greater Cincinnati Water Works participate in one of two pension plans — either the Retirement System of the City of Cincinnati, administered by the City of Cincinnati, or the Public Employees Retirement System (PERS), administered by the State of Ohio. The Greater Cincinnati Water Works contributions to the City administered retirement system during 2004 and 2003 were \$2,782,000 and \$1,814,000 respectively. Contributions to PERS during 2004 and 2003 were \$218,000 and \$188,000 respectively. The actuary annually determines employer contributions to the City system for the current and following years. The actuarially computed value of vested and non-vested benefits on the plan's net assets available for plan benefits for each of the respective plans is not determined separately for the Greater Cincinnati Water Works.

**Contributed Capital** — Contributions consist of facilities, or cash payments for construction of facilities, received from property owners and governmental agencies who receive benefit from such facilities. In accordance with GASB's Codification, Section G60.116, which allows (but does not require) enterprise funds to close out depreciation expense on contributed assets to "contributed capital" rather than to "retained earnings" the Greater Cincinnati Water Works has adjusted its Contributed Capital and Retained Earnings to reflect this option.

**Revenue** — Unbilled revenues on metered accounts are accrued at year-end. Rates are authorized by City Council based on operating costs and anticipated capital expenditures. A contract between the City and the Hamilton County Board of Commissioners specifies a differential between the rates for City and for Hamilton County consumers, declining from 55% to 25% over the life of the contract ending December 31, 2017. Rates applicable to residents of other counties and some municipalities in Hamilton County are negotiated separately.

## Long Term Debt

**Long Term Debt** — This consists of General Obligation Bonds which are issued for the purpose of various Greater Cincinnati Water Works improvements. The bonds are self-supporting and serviced by water user charges; however, should the user charges be insufficient to cover debt service, the principal and interest are to be paid from the proceeds of the levy of ad valorem taxes on all property in the City without limitation as to the rate or the amount. The Greater Cincinnati Water Works for the first time issued Revenue Bonds during 2002. The Greater Cincinnati Water Works expects to finance future capital requirements utilizing revenue bonds. The annual requirements to amortize all debt outstanding as of December 31, 2004 are as follows (000's omitted):

	Year Ending December 31,	Total	Principal	Interest
Current	2005	\$ 28,370	\$ 17,370	\$ 11,000
Long Term	2006	26,180	15,900	10,280
	2007	23,911	14,270	9,641
	2008	21,675	12,555	9,120
	2009	18,875	10,240	8,635
	2010-2023	225,232	163,475	61,757
Total Long Term		\$ 315,873	\$ 216,440	\$ 99,433
		<u>\$ 344,243</u>	<u>\$ 233,810</u>	<u>\$ 110,433</u>

**As of December 31, 2004 and 2003 Long Term Debt consisted of the following (000's omitted):**

Bond	Original Principal Issue	Interest Rate (Percent)	Maturity Date	2004 Principal Outstanding	2003 Principal Outstanding
G-1140	\$ 15,000	6.75	2004	\$ 0	\$ 1,000
G-1146	12,000	6.7	2005	800	1,600
G-1147	10,000	6.75	2005	1,400	2,100
G-1162	5,000	5.375	2007	0	1,400
G-1240 replaces G-1162		5.375		1,050	0
G-1176	8,000	4.6	2004	0	800
G-1185	9,000	5.15	2005	900	1,800
G-1192	11,800	4.1	2006	2,360	3,540
G-1197	15,600	4.75	2007	4,800	6,300
G-1203	25,600	4.375	2008	10,400	13,000
G-1210	29,800	4.2	2014	19,800	21,800
S-2001	92,685	4.912	2021	83,875	86,950
S-2003	112,360	4.377	2023	108,425	112,360
	<b>\$ 346,845</b>			<b>\$ 233,810</b>	<b>\$ 252,650</b>
	<b>Less Current Maturity</b>			<b>(17,370)</b>	<b>(18,840)</b>
	<b>Long Term Debt</b>			<b>\$ 216,440</b>	<b>\$ 233,810</b>

### Other City Agency Transactions

**Metropolitan Sewer District and Storm Water Management** — The Greater Cincinnati Water Works provides billing and collection services of customers' accounts for the Metropolitan Sewer District and the Storm Water Management Utility. The charges for these services are recognized as revenue and included in the Statement of Revenue, Expense and Changes in Retained Earnings. During 2004 and 2003 the fees for these services were \$5,072,000 and \$4,749,000 respectively.

**Free Water** — The Greater Cincinnati Water Works provides free water service to the City of Cincinnati for municipal purposes. During 2004 and 2003 the values of these services were \$897,000 and \$878,000 respectively.

**Other City Agency Transactions** — The City provides various services to the Greater Cincinnati Water Works for which a fee is charged. These services include personnel, purchasing, legal service, etc. During 2004 and 2003 these fees were \$2,536,000 and \$2,007,000 respectively. Also, the City's Municipal Garage provides gasoline and maintenance service for Water Works vehicles. During 2004 and 2003 these fees were \$903,000 and \$827,000 respectively. In addition, the City's Regional Computer Center provides a variety of services for the Greater Cincinnati Water Works. The primary service provided to the Greater Cincinnati Water Works by the Regional Computer Center is billing and collection system support. During 2004 and 2003 the fees for these services were \$1,548,000 and \$1,431,000 respectively.

### Other Issues

During 1993, the Water Works entered into an agreement with the Hamilton County Board of Commissioners to extend water service to previously unserved, unincorporated areas of western Hamilton County. This agreement specifies that a portion of those water collections received from current customers in unincorporated areas of Hamilton County be segregated for the purpose of financing construction of the utility necessary to serve the additional customers. This amount is reflected as Due to Other Governments in the financial statements.

Activity Fund	January 1, 2004	Additions	Deductions	December 31, 2004
<b>Assets:</b>				
Equity in City Treasury Cash	<u>\$ 972</u>	<u>\$ 21,716</u>	<u>\$ 1,561</u>	<u>\$ 21,127</u>
<b>Liabilities:</b>				
Accounts Payable	\$ 0	\$ 1,561	\$ 1,561	\$ 0
Fund Balance	972	21,716	1,561	21,127
<b>Total Liabilities</b>	<u>\$ 972</u>	<u>\$ 23,277</u>	<u>\$ 3,121</u>	<u>\$ 21,127</u>



Since 1839, Greater Cincinnati Water Works

**clean**  
has worked hard to continually update and

**safe**  
improve our infrastructure to deliver clean,

**water**  
safe, and plentiful water to our customers.



*A Service of The City of Cincinnati*

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